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BELL, BOYD & LLOYD LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			BARQADLE, YASIN M	
		ART UNIT	PAPER NUMBER	
		2153		

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/903,755	BORDER, JOHN
	Examiner Yasin M. Barqadle	Art Unit 2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 May 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

Response to Amendment

Applicant's arguments filed on November 23, 2005 have been considered and are deemed persuasive. However, they are moot in view of the new ground(s) of rejection.

- Claims 1-30 are presented for examination.

Allowable Subject Matter

Claims 2,9,16 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5, 7, 8, 10, 12, 14, 15, 17, 19, 21, 22, 24, 26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of Perlman et al. (US Patent 5805818).

In referring to claim 1,

- A plurality of communication interfaces configured to receive and to forward messages according to a prescribed protocol:

Green, Fig. 3b shows a communication interface between a client and the network apparatus and a communication interface between a server and the network apparatus.

Green, Fig. 4 shows the protocol used is TCP/IP

- A plurality of modules configured to process the messages to effect performance enhancing functions:

"In FIG. 3b, representations of modules or components of the proxy are shown. A client transfers transport data or PDUs to a TCP stack in the program. The stack passes data on to the relay, which in turn passes it on to a connection manager." (Green, col. 8, lines 15-19)

- A plurality of buffers configured to store the received messages and messages that are generated by one of the plurality of modules:

Green, Fig. 3b shows stacks that store received messages and messages that are generated by one of the plurality of modules

- A portion of the plurality of buffers is shared by the plurality of modules based upon execution of a particular one of the performance enhancing functions; each of the plurality of buffers has a data structure to accommodate different message types.

Green, Fig. 3b shows a portion of the plurality of buffers is shared by the plurality of modules, said modules store PDUs generated by the modules, and said modules generate PDUs bases upon execution of a particular one of the performance enhancing functions, such as security

Although Green shows substantial features of the claimed invention as shown in claim 1 (see 102 rejection above), Green does not show where the structure includes an expandable header. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Green as evidenced by Perlman et al. (US Patent 5805818).

In analogous art, Perlman et al shows expandable header field (As shown in FIG).

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of altering the system of Green so as to provide an expandable header, such as taught by Perlman et al, in order to route and facilitate the flow of different data packets to the proper receiving nodes.

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In referring to claim 3, The communication interface includes a local area network (LAN) interface, and a wide area network (WAN) interface: The system of Green is a firewall system, the background of Green discusses various uses of firewalls including connecting a LAN to a WAN: "Firewalls are devices, such as programs or separate computer systems which were introduced in order to address the security problems associated with connecting a one private network such as a local area network connecting computers to an office, to an 'Internet' where the data # transmissions are open to eavesdropping, and the potential exists for "hostile" outsiders to disrupt network service or tamper with or attack systems residing on the private network. "

(Green, col. 1, lines 19-26)

* One of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction; another one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction

In referring to claim 5,

* A specific header field that stores platform specific information: A system that uses the TCP/IP protocol suite inherently implies a version field, which stores platform specific information ; a common header field that stores platform known to the plurality of modules: All of the fields can be read by the modules mzd are therefore known to the plurality of modules ; a payload field: A system that uses the TCP/V protocol suite inherently implies a payload field An offset

5eld that indicates start of the payload field: A system that uses the TCP/IP protocol suite inherently implies an offset field . A header growth field that provides a variable header length: A system that uses the TCP/IP protocol suite inherently implies a header length field

In referring to claim 7,

* The prescribed protocol is the Transmission Control Protocol (TCP): Green, Fig. 4 shows the protocol used is TCP

In referring to claim 8, receiving messages according to a prescribed protocol: Green, Fig. 3b shows a communication interface between a client and the network apparatus and a communication interface between a server and the network apparatus. Green, Fig. 4 shows the protocol used is TCP/IP ; processing the messages to effect performance enhancing functions via a plurality of modules: Green, col. 8, lines 15-19 (see full quote above); storing the received messages and messages that are generated by' one of the plurality of modules in a plurality of buffers: Green, Fig. 3b shows stacks that buffer/store received messages and messages that are generated by one of the plurality of modules A portion of the plurality of buffers is shared by the plurality of modules based upon execution of a particular one of the performance enhancing functions; Green, Fig. 3b shows a portion of the plurality of buffers is shared by the plurality of modules, said modules store PDUS generated by the modules, and said modules generate PDUS bases upon execution of a particular one of the performance enhancing functions, such as security Each of the plurality of buffers has a data structure that includes an expandable header to accommodate different message types: A stack that sends and receives TCP/P packets inherently implies an expandable header to accommodate different message types

In referring to claim 10,

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* A local area network (LAN) interface and a wide area network (WAN) interface: The system of Green is a firewall system, the background of Green discusses various uses of firewalls including connecting a LAN to a WAN: Green, col. 1, lines 19-26 (see 111 quote above) ; one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction . Another one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction

In referring to claim 12,

* A specific header field that stores platform specific information: A system that uses the TCP/P protocol suite inherently implies a version field, which stores platform specific information; a common header field that stores information known to the plurality of modules: All of the fields can be read by the modules and are therefore known to the plurality of modules ; a payload field: A system that uses the TCP/IP protocol suite inherently implies a payload field; an offset field that indicates start of the payload field: A system that uses the TCP/.IP protocol suite inherently implies an offset field * A header growth field that provides a variable header length:

A system that uses the TCP/V protocol suite inherently implies a header length field

In referring to claim 14, . The prescribed protocol in the receiving step is the Transmission Control Protocol (TCP): Green, Fig. 4 shows the protocol used is TCP

In referring to claim 15, means for receiving messages according to a prescribed protocol: Green, Fig. 3b shows a communication interface between a client and the network apparatus and a communication interface between a server and the network apparatus. Green, Fig. 4 shows the protocol used is TCP/IP * Means for processing the messages to effect performance enhancing functions: Green, col. 8, lines 15-19 (see 111 quote above) ; the received messages and messages that are generated by processing means are stored in a plurality of buffers: Green, Fig. 3b shows stacks buffer/store received messages and messages that are generated by one of the plurality of modules; a portion of the plurality of buffers being shared by the processing means based upon execution of a particular one of the performance enhancing functions: Green, Fig. 3b shows a portion of the plurality of buffers is shared by the plurality of modules, said modules store PDUS generated by the modules, and said modules generate PDUS bases upon execution of a particular one of the performance enhancing functions, such as security : each of the plurality of buffers having a data structure that includes an expandable header to accommodate different message types: A stack that sends and receives TCP/IP packets inherently implies an expandable header to accommodate different message types

In referring to claim 17, * The receiving means includes at least one of a local area network (LAN) interface and a wide area network (WAN) interface: The system of Green is a firewall system, the background of Green discusses various uses of firewalls including connecting a LAN to a WAN: Green, col. 1, lines 19-26 (see 111 quote above) . One of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction ; another one of the

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plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction

In referring to claim 19, a specific header field that stores platform specific information: A system that uses the TCP/IP protocol suite inherently implies a version field, which stores platform specific information * A common header field that stores information known to the plurality of modules: All of the fields can be read by the modules and are therefore known to the plurality of modules * A payload field: A system that uses the TCP/P protocol suite inherently implies a payload field ; an offset field that indicates start of the payload field: A system that uses the TCP/IP protocol suite inherently implies an offset field ; a header growth field that provides a variable header length: A system that uses the TCP/P protocol suite inherently implies a header length field

In referring to claim 21, the prescribed protocol is the Transmission Control Protocol (TCP): Green, Fig. 4 shows the protocol used is TCP

In referring to claim 22, receiving messages according to a prescribed protocol: Green, Fig. 3b shows a communication interface between a client and the network apparatus and a communication interface between a server and the network apparatus. Green, Fig. 4 shows the protocol used is TCP/IP * Processing the messages to effect performance enhancing functions via a plurality of modules: Green, col. 8, lines 15-19 (see full quote above) * Storing the received messages and messages that are generated by one of the plurality of modules in a plurality of buffers: Green, Fig. 3b shows stacks that buffer/store received messages and messages that are

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generated by one of the plurality of modules * A portion of the plurality of buffers is shared by the plurality of modules based upon execution of a particular one of the performance enhancing functions: Green, Fig. 3b shows a portion of the plurality of buffers is shared by the plurality of modules, said modules store PDUS generated by the modules, and said modules generate PDUS bases upon execution of a particular one of the performance enhancing functions, such as security Each of the plurality of buffers has a data structure that includes an expandable header to accommodate different message types: A stack that sends and receives TCP/IP packets inherently implies an expandable header to accommodate different message types

In referring to claim 24, * The receiving step is performed by a communication interface that includes at least one of a local area network (LAN) interface and a wide area network (WA'NI interface: The system of Green is a firewall system, the background of Green discusses various uses of firewalls including connecting a LAN to a WAN: Green, col. 1, lines 19-26 (see full quote above) * One of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction . Another one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction: Green, Fig. 3b shows one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction

In referring to claim 26 and 28, these claims correspond to claims 19 and 21 above, therefore, they are rejected with the same rationale.

In referring to claim 29, a specific header field that stores platform specific information: A system that uses the TCP/P protocol suite inherently implies a version field, which stores platform specific information; a common header field that stores information known to the plurality of modules: All of the fields can be read by the modules and are therefore known to the plurality of modules ; a payload field: A system that uses the TCP/P protocol suite inherently implies a payload field *. An offset field that indicates start of the payload field: A system that uses the TCPJP protocol suite inherently implies an offset field ; a header growth field that provides a variable header length: A system that uses the TCP/P protocol suite inherently implies a header length field

Claims 4, 11, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of Humphrey et al. (U.S. Patent Number 6,434,609, hereinafter "Humphrey").

In referring to claim 4, although Green shows substantial features of the claimed invention, including the system of claim 3 (see 102 rejection above), Green does not show the WAN is satellite network. Nonetheless this feature is well known in the art and would have been an obvious implementation of the system disclosed by Green as evidenced by Humphrey. In analogous art, Humphrey discloses a comprehensive global information network broadcasting system and methods of distributing information. Humphrey shows a WAN that is a satellite network: "The use of satellite communications to provide a broadcast medium to the Internet may be accomplished by orbital satellites which allow a single signal to be sent up to a satellite and the resulting signal to be sent down to large geographic areas. " (Humphrey, col. 4, lines 45-49) Given these teachings, a person of ordinary skill in the art would have readily recognized the

desirability and advantages of modifying the system of Green so as to use a satellite network, such as taught by Humphrey, in order to provide network access to remote and non-permanent locations.

In referring to claim 11, although Green shows substantial features of the claimed invention, including the system of claim 10 (see 102 rejection above), Green does not show the WAN is satellite network. Nonetheless this feature is well known in the art and would have been an obvious implementation of the system disclosed by Green as evidenced by Humphrey. In analogous art, Humphrey discloses a comprehensive global information network broadcasting system and methods of distributing information. Humphrey shows a WAN that is a satellite network: Humphrey, col. 4, lines 45-49 (see full quote above)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a satellite network, such as taught by Humphrey, in order to provide network access to remote and non-permanent locations.

In referring to claim 18, although Green shows substantial features of the claimed invention, including the system of claim 17 (see 102 rejection above), Green does not show the WAN is satellite network. Nonetheless this feature is well known in the art and would have been an obvious implementation of the system disclosed by Green as evidenced by Humphrey. In analogous art, Humphrey discloses a comprehensive global information network broadcasting system and methods of distributing information. Humphrey shows a WAN that is a satellite network: Humphrey, col. 4, lines 45-49 (see full quote above) Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of

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modifying the system of Green so as to use a satellite network, such as taught by Humphrey, in order to provide network access to remote and non-permanent locations.

In referring to claim 25, although Green shows substantial features of the claimed invention, including the system of claim 22 (see 102 rejection above), Green does not show the WAN is a satellite network. Nonetheless this feature is well known in the art and would have been an obvious implementation of the system disclosed by Green as evidenced by Humphrey. In analogous art, Humphrey discloses a comprehensive global information network broadcasting system and methods of distributing information. Humphrey shows a WAN that is a satellite network: Humphrey, col. 4, lines 45-49 (see 111 quote above) Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a satellite network, such as taught by Humphrey, in order to provide network access to remote and non-permanent locations.

Claims 6, 13, 20, 27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of Wells et al. IRFC 1795: Data Link Switching.. Switch-to-switch Protocol, hereinafter "Wells").

In referring to claim 6, although Green shows substantial features of the claimed invention, including the system of claim 5 (see 102 rejection above), Green does not show a flag field, connection handle field, and an owner specified field. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Green as evidenced by Wells. In analogous art, Wells discloses data link switching over TCP/IP. Wells shows: A flag field that specifies direction of message flow: "The Frame Direction field (offset

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38) is set to 0x01 for frames sent from the origin DLSw, to the target DLSw, and is set to 0x02 for frames sent from the target DLSw to the origin DLSw.” (Wells, page 10)

* A connection handle field that specifies handle of a backbone connection; and "A data link is defined as a logical association between the two end stations using Data Link Switching. It is identified by a Data Link ID (14 bytes) consisting of the pair of attachment addresses associated with each end system." (Wells, page 11); an owner specific field that stores an owner specific header: "An example of using all User Definable SAPS of 0x04 to OXEC for SNA Data Link Switching and SAP 0x04 for NetBIOS Data Link Switching would be as follows." (Wells, Page 70). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a flag field, connection handle field, and an owner specified field, such as taught by Wells, in order to provide data link switching over the TCP/IP network.

In referring to claim 13, although Green shows substantial features of the claimed invention, including the system of claim 12 (see 102 rejection above), Green does not show a flag field, connection handle field, and an owner specified field. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Green as evidenced by Wells. In analogous art, Wells discloses data link switching over TCP/IP. Wells shows: * A flag field that specifies direction of message flow: Wells, page 10 (see full quote above) * A connection handle field that specifies handle of a backbone connection; and Wells, page 11 (see full quote above) * An owner specific field that stores an owner specific header: Wells, page 70 (see full quote above) Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green

so as to use a flag field, connection handle field, and an owner specified field, such as taught by Wells, in order to provide data link switching over the TCP/IP network.

In referring to claim 20, although Green shows substantial features of the claimed invention, including the system of claim 19 (see 102 rejection above), Green does not show a flag field, connection handle field, and an owner specified field. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Green as evidenced by Wells. In analogous art, Wells discloses data link switching over TCP/IP. Wells shows: * A flag field that specifies direction of message flow: Wells, page 10 (see full quote above) * A connection handle field that specifies handle of a backbone connection; and Wells, page 11 (see full quote above) * An owner specific field. that stores an owner specific header: Wells, page 70 (see 111 quote above). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a flag field, connection handle field, and an owner specified field, such as taught by Wells, in order to provide data link switching over the TCP/IP network.

In referring to claim 27, although Green shows substantial features of the claimed invention, including the system of claim 26 (see 102 rejection above), Green does not show a flag field, connection handle field, and an owner specified field. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Green as evidenced by Wells. In analogous art, Wells discloses data link switching over TCP/IP. Wells shows: * A flag field that specifies direction of message flow: Wells, page 10 (see full quote above) * A connection handle field that's specifies handle of a backbone connection; and Wells, page 11 (see full quote above) * An owner specific field that stores an owner specific header:

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Wells, page 70 (see full quote above) Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a flag field, connection handle field, and an owner specified field, such as taught by Wells, in order to provide data link switching over the TCP/IP network.

In referring to claim 30, although Green shows substantial features of the claimed invention, including the system of claim 29 (see 102 rejection above), Green does not show a flag field, connection handle field, and an owner specified field. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Green as evidenced by Wells. In analogous art, Wells discloses data link switching over TCP/IP. Wells shows: * A flag field that specifies direction of message flow: Wells, page 10 (see full quote above) * A connection handle field that specifies handle of a backbone connection; and Wells, page 11 (see 111 quote above) * An owner specific field that stores an owner specific header: Wells, page 70 (see full quote above) Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Green so as to use a flag field, connection handle field, and an owner specified field, such as taught by Wells, in order to provide data link switching over the TCP/IP network.

Conclusion

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

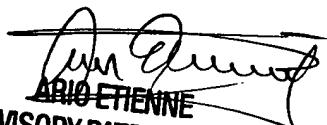
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

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